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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,948	09/20/2001	Kimio Tatsuno	NITT.0041	9931

7590 09/25/2003

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/955,948

Applicant(s)

TATSUNO ET AL.

Examiner

Armando Rodriguez

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/24/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the convex portion of the substrate must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second etalons must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 4 is objected to because of the following informalities: typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 16 recite a formula to obtain the height (h) from a fixed end of an etalon on a substrate to the optical axis of a laser beam. The formula $h=1/e^2 \times a$, where e is a log constant of 2.718 and a is the radius of the laser beams. On page 15 lines 24-25, page 16 lines 1-16 and illustrated in figure 18, applicant describes obtaining the radius a by approximating the radius to $1/e^2$, which is well known in the art to describe the radius of an energy intensity of a laser beam center, however applicant does not describe, suggest or imply that the height is obtained by the multiplication of $1/e^2 \times a$. The example on page 16 has been considered but it is not clear, based on the claimed formula, how applicant obtained the range of 3 micron to 4 mm. As understood by the examiner, according to pages 15, 16 and figure 18, the radius is approximated to .135 and the height is within the range of one-tenth fold to four fold of the radius. Thereby, applicant has not provided support for the claimed formula to obtain the height as recited in claims 1 and 16.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Komiyama et al (PN 6,477,190).

Regarding claims 1-7,12,14,15

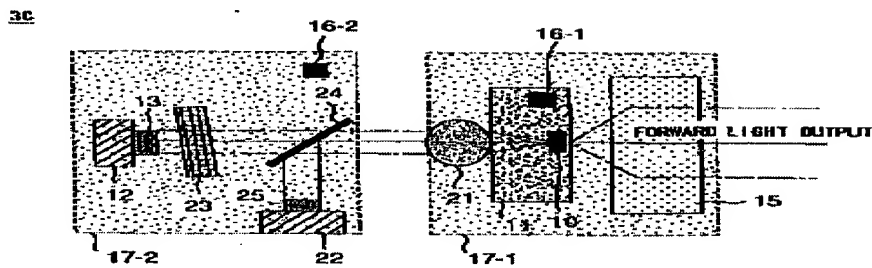
Figures 22 and 23 illustrates an optical module having a laser source (10), an output forward laser beam and back facet monitoring laser beam. The monitoring laser beam is divided by beam splitter (24) into two portions beams, where one portion is detected by photodetector (25), a second portion is filtered by etalon (23) and transmitted to photodetector (13), where the optical components of the module are positioned on mount carriers (17-1) and (17-2), which mounted on TEC (14-2) for temperature control of the optical module. Figure 24 illustrates the feedback circuit of the optical module, which makes the necessary temperature adjustment in accordance to the compared signals received by the photodetectors.

Regarding claim 11,

See figure 28 for dividing the laser beam into more than two portions.

Regarding claim 13,

The etalon does resemble a rectangular shape.

FIG. 23

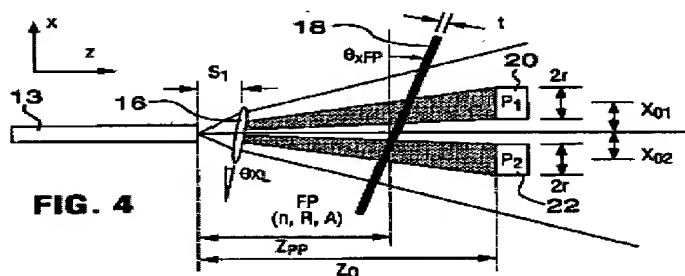
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Villeneuve et al (PN 5,825,792).

Figure 4 illustrates a laser system having a laser source (13), an etalon (18) and two photodetectors (20) and (22), where the laser beam is filtered by the etalon, which is positioned at an angle to provide a difference in path length for the laser beam the beam is transmitted into the photodetectors. Figure 5 illustrates a feedback circuit for the laser beam, which provides temperature control of the system in accordance with the compared signals received from the photodetectors.

Regarding claim 19,20,

The etalon does resemble a rectangular shape.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiyama et al (PN 6,477,190) in view of May (US 2002/0163650).

Figures 22 and 23 illustrates an optical module having a laser source (10), an output forward laser beam and back facet monitoring laser beam. The monitoring laser beam is divided by beam splitter (24) into two portions beams, where one portion is detected by photodetector (25), a second portion is filtered by etalon (23) and transmitted to photodetector (13), where the optical components of the module are positioned on mount carriers (17-1) and (17-2), which mounted on TEC (14-2) for temperature control of the optical module. Figure 24 illustrates the feedback circuit of the optical module, which makes the necessary temperature adjustment in accordance to the compared signals received by the photodetectors.

Komiyama et al does not describe the use of a cover to adjust the temperature of the etalon.

May discloses in paragraph [0056] and illustrates in figure 11, providing an enclosure (622) for the etalon (62), which will control the temperature of the etalon and maintain the temperature of the etalon similar to the laser source.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to enclose the etalon of Komiyama et al with the enclosure of May because it would provide temperature control of the etalon.

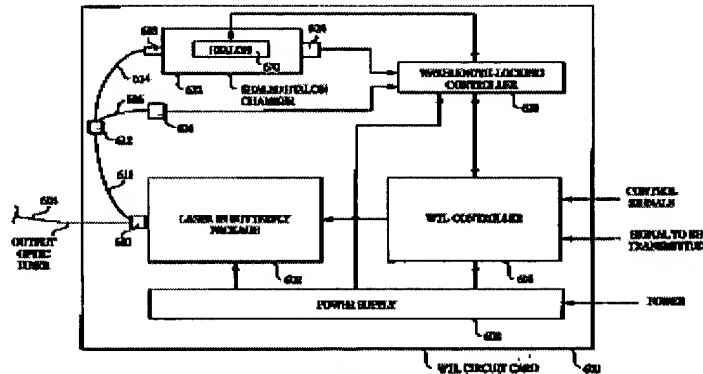


FIG. 11

Claims 16,22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villeneuve et al (PN 5,825,792) in view of May (US 2002/0163650).

Figure 4 illustrates a laser system having a laser source (13), an etalon (18) and two photodetectors (20) and (22), where the laser beam is filtered by the etalon, which is positioned at an angle to provide a difference in path length for the laser beam the beam is transmitted into the photodetectors. Figure 5 illustrates a feedback circuit for the laser beam, which provides temperature control of the system in accordance with the compared signals received from the photodetectors.

Villeneuve et al does not describe the use of a cover to adjust the temperature of the etalon.

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May discloses in paragraph [0056] and illustrates in figure 11, providing an enclosure (622) for the etalon (62), which will control the temperature of the etalon and maintain the temperature of the etalon similar to the laser source.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to enclose the etalon of Komiyama et al with the enclosure of May because it would provide temperature control of the etalon.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4881.


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI